

CLAIMS

[1] A fixing method, comprising heat-pressure-fixing an unfixed toner image formed on a recording medium by using fixing means, wherein:

5 the unfixed toner image is fixed when the
 recording medium passes through at least 2 fixing units
 arranged in series in a conveying direction of the
 recording medium;

a toner for forming the unfixed toner image
10 comprises a toner containing a release agent; and

the following formulas (1) and (2) are satisfied when a maximum temperature on the recording medium when the recording medium passes through a first fixing unit is denoted by T_1 , a maximum temperature on the recording medium when the recording medium passes through a second fixing unit is denoted by T_2 , a minimum temperature on the recording medium during a time period commencing on ejection of the recording medium from the first fixing unit and ending on entry of the recording medium into the second fixing unit is denoted by t , a flow tester softening temperature of the toner is denoted by T_s , and a flow starting temperature of the toner is denoted by T_{fb} .

$$T1 > Tfb \quad \text{formula (1)}$$

25 $T_2 > t > T_s$ formula (2)

[2] The fixing method according to claim 1,

wherein, when a flow tester 1/2 method melting temperature of the toner is denoted by $T_{1/2}$, $T_{1/2}$ and T_2 satisfy the following formula (3).

$$T_2 > T_{1/2} \quad \text{formula (3)}$$

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[3] The fixing method according to claim 1, wherein a maximum value of a maximum endothermic peak is found in a temperature range of 60 to 140°C in an endothermic curve in differential scanning calorimetry
10 on the toner.

[4] A fixing device, comprising fixing means for heat-pressure-fixing an unfixed toner image formed on a recording medium, wherein:

15 the unfixed toner image is fixed when the recording medium passes through at least 2 fixing units arranged in series in a conveying direction of the recording medium;

a toner for forming the unfixed toner image
20 comprises a toner containing a release agent; and

the following formulas (1) and (2) are satisfied when a maximum temperature on the recording medium when the recording medium passes through a first fixing unit is denoted by T_1 , a maximum temperature on the
25 recording medium when the recording medium passes through a second fixing unit is denoted by T_2 , a minimum temperature on the recording medium during a

time period commencing on ejection of the recording medium from the first fixing unit and ending on entry of the recording medium into the second fixing unit is denoted by t , a flow tester softening temperature of the toner is denoted by T_s , and a flow starting temperature of the toner is denoted by T_{fb} .

$$T_1 > T_{fb} \quad \text{formula (1)}$$

$$T_2 > t > T_s \quad \text{formula (2)}$$

[5] The fixing device according to claim 4, wherein, when a flow tester 1/2 method melting temperature of the toner is denoted by $T_{1/2}$, $T_{1/2}$ and T_2 satisfy the following formula (3).

$$T_2 > T_{1/2} \quad \text{formula (3)}$$

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[6] The fixing device according to claim 4, wherein a maximum value of a maximum endothermic peak is found in a temperature range of 60 to 140°C in an endothermic curve in differential scanning calorimetry on the toner.

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